REMARKS

Claim 1 has been amended to clarify that the array support has at least two locations for supporting materials and the heat source is a location selective heat source. No new matter has been added by these amendments, and support can be found in applicants specification at paragraphs 24, 35, 37, 41, 49, and 52. Claim 51 was amended to correct a typographical error.

Claim 51-55 stand rejected under 35 USC 112, second paragraph, as being indefinite. Specifically the limitation "a dispersion structure positioned between the fluid inlet at the array support" was cited as being unclear. Applicants have correct the typographical error and replaced the word "at" with the word "and". With the amendment, applicants request that the rejection be withdrawn.

Claims 42, 44, and 45 stand rejected under 35 USC 102(e) and 35 USC 103(a) as anticipated by or obvious over Cutler et al, and Claim 43 stands rejected under 35 USC 35 USC 103(a) as being unpatentable over Cutler et al. in view of Capuano et al. or Miroslav. The subject claims have been cancelled.

Claims 1, 4-6, 9, 10, 13, 16, 17, 22, and 46 stand rejected under 35 USC 103(a) obvious over Cutler et al. in view of Goodwin Jr. and/or Ullman et al, and/or BarrancoIII and/or Prost, and/or Shipley, and/or Naughton and/or Hutchins. Claims 8 and 19 are rejected under 35 USC 103(a) obvious over Cutler et al. in view of Goodwin Jr. and/or Ullman et al, and/or BarrancoIII and/or Prost, and/or Shipley, and/or Naughton and/or Hutchins and further in view of Willson III. Claims 3 and 21 stand rejected under 35 USC 103(a) obvious over Cutler et al. in view of Goodwin Jr. and/or Ullman et al, and/or BarrancoIII and/or Prost, and/or Shipley, and/or Naughton and/or Hutchins and further in view of Capuano et al. or Miroslav. Claims 14 and 15 stand rejected under 35 USC 103(a) obvious over Cutler et al. in view of Goodwin Jr. and/or Ullman et al, and/or BarrancoIII and/or Prost, and/or Shipley, and/or Naughton and/or Hutchins and further in view of Bridon and/or Walker et al.

Claim 46 has been cancelled. Applicants traverse the rejection as to claims 1, 3-6, 8-10, 13-17, 19, 21, and 22 and assert that the cited references do not teach or suggest each and every element of applicants' invention. Specifically, applicants' invention, as amended, requires a location selective heat source in alignment with the window, wherein

said location selective heat source sequentially heats the materials at the locations of the array support. None of the cited references teach or suggest such a heat source in alignment with the window.

Cutlet et al. does not teach a heat source in alignment with the window, as acknowledged by the Official Office Action. The office action states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Cutler et al. to provide a heater in alignment with the window tc provide appropriate incubation temperatures to encourage cell growth in performing cell assays as taught by another seven references. None of the references however, teach or suggest using a location selective heat source for sequential heating of material at the different locations of the array support.

Applicants teach in paragraph 21 of their specification that a carbon dioxide laser was used as the radiation source in Example 1. A feed fluid of hydrogen and carbon monoxide was purged through a water sparger and then contacted with the array of catalysts in the reaction cell. While the general cell temperature was maintained at 150°C using a heater, the carbon dioxide laser was directed at the first catalyst of the first array and activated for a period of about 20 seconds at 6 percent power to achieve a reaction temperature of about 250°C at the location of the first catalyst. A mass spectrometer was used to detect the generation of carbon dioxide as an indication of the relative activity of the catalyst for the water gas shift reaction. After about 300 seconds, the laser was directed at the second catalyst of the array and activated for a period of about 20 seconds. Again, the generation of carbon dioxide was detected by the mass spectrometer as an indication of the relative activity of the second catalyst. The process was repeated in the same manner for the third catalyst of the array. Note that the heat source, the carbon dioxide laser, is a location selective heat source that is used to heat only the material at the first location of the array support and then to heat only the material at the second location of the arrays support and so on.

As to other conclusions stated in the Official Office Action, such as the assertion that a combination of references obviate (1) the materials of construction for the array support so that it would be a different material from that of the semi-permeable membrane; (2) the inclusion of a detector connected to a microprocessor; (3) the

quadrupole mass spectrometer as a detector; and (4) a detector connected to a microprocessor with the detector in fluid communication with the outlet, and assuming for the sake of argument that the conclusions are correct, even such conclusions, would not overcome the failure of references to teach or suggest location selective heat source in alignment with the window, wherein said location selective heat source sequentially heats the materials at the locations of the array support, and therefore fail to obviate applicants' invention.

Claims 47-50, 56-60 are allowed, and Claims 12, 18, 20, would be allowable if rewritten in independent form. Claims 51-55 have been amended to cure the 35 USC 112, second paragraph, rejection and are therefore allowable.

In summary, with the references failing to teach or suggest a claimed feature of applicants' invention, i.e., a location selective heat source in alignment with the window, wherein the location selective heat source sequentially heats the materials at the locations of the array support, this application is now believed to be in a condition for an allowance of all pending claims and such action is respectfully requested.

Respectfully submitted,

Maryann Maas
Attorney for Applicants
Reg. No. 38,954
(847) 391-2137 (phone)
(847) 391-2387 (fax)

James W. Hellwege, Reg. No. 28,808
Washington Counsel
(703) 205-8021